§ 250.618

tested, calipered, or otherwise evaluated every 30 days and the results submitted to the District Supervisor.

- (c) When reinstalling the tree, the wellhead shall be equiped so that all annuli can be monitored for sustained pressure. If sustained casing pressure is observed on a well, the lessee shall immediately notify the District Supervisor
- (d) Wellhead, tree, and related equipment shall have a pressure rating greater than the shut-in tubing pressure and shall be designed, installed, used, maintained, and tested so as to achieve and maintain pressure control. The tree shall be equipped with a minimum of one master valve and one surface safety valve in the vertical run of the tree when it is reinstalled.
- (e) Subsurface safety equipment shall be installed, maintained, and tested in compliance with §250.801 of this part.

[53 FR 10690, Apr. 1, 1988, as amended at 54 FR 50617, Dec. 8, 1989; 55 FR 47753, Nov. 15, 1990. Redesignated and amended at 63 FR 29479, 29485, May 29, 1998]

§250.618 Wireline operations.

The lessee shall comply with the following requirements during routine, as defined in §250.601 of this part, and nonroutine wireline workover operations:

- (a) Wireline operations shall be conducted so as to minimize leakage of well fluids. Any leakage that does occur shall be contained to prevent pollution
- (b) All wireline perforating operations and all other wireline operations where communication exists between the completed hydrocarbon-bearing zone(s) and the wellbore shall use a lubricator assembly containing at least one wireline valve.
- (c) When the lubricator is initially installed on the well, it shall be successfully pressure tested to the expected shut-in surface pressure.

[53 FR 10690, Apr. 1, 1988. Redesignated and amended at 63 FR 29479, 29485, May 29, 1998]

Subpart G [Reserved]

Subpart H—Oil and Gas Production Safety Systems

§250.800 General requirements.

Production safety equipment shall be designed, installed, used, maintained, and tested in a manner to assure the safety and protection of the human, marine, and coastal environments. Production safety systems operated in subfreezing climates shall utilize equipment and procedures selected with consideration of floating ice, icing, and other extreme environmental conditions that may occur in the area. Production shall not commence until the production safety system has been approved and a preproduction inspection has been requested by the lessee.

§ 250.801 Subsurface safety devices.

- (a) General. All tubing installations open to hydrocarbon-bearing zones shall be equipped with subsurface safety devices that will shut off the flow from the well in the event of an emergency unless, after application and justification, the well is determined by the District Supervisor to be incapable of natural flowing. These devices may consist of a surface-controlled subsurface safety valve (SSSV), a subsurface-controlled SSSV, an injection valve, a tubing plug, or a tubing/annular subsurface safety device, and any associated safety valve lock or landing nipple.
- (b) Specifications for SSSV's. Surface-controlled and subsurface-controlled SSSV's and safety valve locks and landing nipples installed in the OCS shall conform to the requirements in §250.806 of this part.
- (c) Surface-controlled SSSV's. All tubing installations open to a hydrocarbon-bearing zone which is capable of natural flow shall be equipped with a surface-controlled SSSV, except as specified in paragraphs (d), (f), and (g) of this section. The surface controls may be located on the site or a remote location. Wells not previously equipped with a surface-controlled SSSV and wells in which a surface-controlled SSSV has been replaced with a subsurface-controlled SSSV in accordance with paragraph (d)(2) of this section

shall be equipped with a surface-controlled SSSV when the tubing is first removed and reinstalled.

- (d) Subsurface-controlled SSSV's. Wells may be equipped with subsurface-controlled SSSV's in lieu of a surface-controlled SSSV provided the lessee demonstrates to the District Supervisor's satisfaction that one of the following criteria are met:
- (1) Wells not previously equipped with surface-controlled SSSV's shall be so equipped when the tubing is first removed and reinstalled,
- (2) The subsurface-controlled SSSV is installed in wells completed from a single-well or multiwell satellite caisson or seafloor completions, or
- (3) The subsurface-controlled SSSV is installed in wells with a surface-controlled SSSV that has become inoperable and cannot be repaired without removal and reinstallation of the tubing.
- (e) Design, installation, and operation of SSSV's. The SSSV's shall be designed, installed, operated, and maintained to ensure reliable operation.
- (1) The device shall be installed at a depth of 100 feet or more below the seafloor within 2 days after production is established. When warranted by conditions such as permafrost, unstable bottom conditions, hydrate formation, or paraffins, an alternate setting depth of the subsurface safety device may be approved by the District Supervisor.
- (2) Until a subsurface safety device is installed, the well shall be attended in the immediate vicinity so that emergency actions may be taken while the well is open to flow. During testing and inspection procedures, the well shall not be left unattended while open to production unless a properly operating subsurface-safety device has been installed in the well.
- (3) The well shall not be open to flow while the subsurface safety device is removed, except when flowing of the well is necessary for a particular operation such as cutting paraffin, bailing sand, or similar operations.
- (4) All SSSV's shall be inspected, installed, maintained, and tested in accordance with American Petroleum Institute Recommended Practice 14B, Recommended Practice for Design, Installation, and Operation of Subsurface Safety Valve Systems.

- (f) Subsurface safety devices in shut-in wells. New completions (perforated but not placed on production) and completions shut in for a period of 6 months shall be equipped with either (1) a pump-through-type tubing plug; (2) a surface-controlled SSSV, provided the surface control has been rendered inoperative; or (3) an injection valve capable of preventing backflow. The setting depth of the subsurface safety device shall be approved by the District Supervisor on a case-by-case basis, when warranted by conditions such as permafrost, unstable bottom conditions, hydrate formations, and paraffins.
- (g) Subsurface safety devices in injection wells. A surface-controlled SSSV or an injection valve capable of preventing backflow shall be installed in all injection wells. This requirement is not applicable if the District Supervisor concurs that the well is incapable of flowing. The lessee shall verify the no-flow condition of the well annually.
- (h) Temporary removal for routine operations. (1) Each wireline- or pumpdown-retrievable subsurface safety device may be removed, without further authorization or notice, for a routine operation which does not require the approval of a Form MMS-124, Sundry Notices and Reports on Wells, in § 250.601 of this part for a period not to exceed 15 days.
- (2) The well shall be identified by a sign on the wellhead stating that the subsurface safety device has been removed. The removal of the subsurface safety device shall be noted in the records as required in §250.804(b) of this part. If the master valve is open, a trained person shall be in the immediate vicinity of the well to attend the well so that emergency actions may be taken, if necessary.
- (3) A platform well shall be monitored, but a person need not remain in the well-bay area continuously if the master valve is closed. If the well is on a satellite structure, it must be attended or a pump-through plug installed in the tubing at least 100 feet below the mud line and the master valve closed, unless otherwise approved by the District Supervisor.
- (4) The well shall not be allowed to flow while the subsurface safety device is removed, except when flowing the

§ 250.802

well is necessary for that particular operation. The provisions of this paragraph are not applicable to the testing and inspection procedures in §250.804 of this part.

- (i) Additional safety equipment. All tubing installations in which wireline- or pumpdown-retrievable subsurface safety device is installed after the effective date of this subpart shall be equipped with a landing nipple with flow couplings or other protective equipment above and below to provide for the setting of the SSSV. The control system for all surface-controlled SSSV's shall be an integral part of the platform Emergency Shutdown System (ESD). In addition to the activation of the ESD by manual action on the platform, the system may be activated by a signal from a remote location. Surface-controlled SSSV's shall close in response to shut-in signals from the ESD and in response to the fire loop or other fire detection devices.
- (j) Emergency action. In the event of an emergency, such as an impending storm, any well not equipped with a subsurface safety device and which is capable of natural flow shall have the device properly installed as soon as possible with due consideration being given to personnel safety.

[53 FR 10690, Apr. 1, 1988, as amended at 54 FR 50617, Dec. 8, 1989; 58 FR 49928, Sept. 24, 1993. Redesignated and amended at 63 FR 29479, 29485, May 29, 1998]

§ 250.802 Design, installation, and operation of surface production-safety systems.

- (a) *General.* All production facilities, including separators, treaters, compressors, headers, and flowlines shall be designed, installed, and maintained in a manner which provides for efficiency, safety of operation, and protection of the environment.
- (b) *Platforms*. You must protect all platform production facilities with a basic and ancillary surface safety system designed, analyzed, installed, tested, and maintained in operating condition in accordance with API RP 14C (incorporated by reference as specified in §250.198). If you use processing components other than those for which Safety Analysis Checklists are included in API RP 14C you must utilize

the analysis technique and documentation specified therein to determine the effects and requirements of these components on the safety system. Safety device requirements for pipelines are under §250.1004.

- (c) Specification for surface safety valves (SSV) and underwater safety valves (USV). All wellhead SSV's, USV's, and their actuators which are installed in the OCS shall conform to the requirements in §250.806 of this part.
- (d) Use of SSV's and USV's. All SSV's and USV's shall be inspected, installed, maintained, and tested in accordance with API RP 14H, Recommended Practice for Use of Surface Safety Valves and Underwater Safety Valves Offshore. If any SSV or USV does not operate properly or if any fluid flow is observed during the leakage test, the valve shall be repaired or replaced.
- (e) Approval of safety-systems design and installation features. Prior to installation, the lessee shall submit, in duplicate for approval to the District Supervisor a production safety system application containing information relative to design and installation features. Information concerning approved design and installation features shall be maintained by the lessee at the lessee's offshore field office nearest the OCS facility or other location conveniently available to the District Supervisor. All approvals are subject to field verifications. The application shall include the following:
- (1) A schematic flow diagram showing tubing pressure, size, capacity, design working pressure of separators, flare scrubbers, treaters, storage tanks, compressors, pipeline pumps, metering devices, and other hydrocarbon-handling vessels.
- (2) A schematic piping flow diagram (API RP 14C, Figure E, incorporated by reference as specified in §250.198) and the related Safety analysis Function Evaluation chart (API RP 14C, subsection 4.3c, incorporated by reference as specified in §250.198).
- (3) A schematic piping diagram showing the size and maximum allowable working pressures as determined in accordance with API RP 14E, Design and Installation of Offshore Production Platform Piping Systems.